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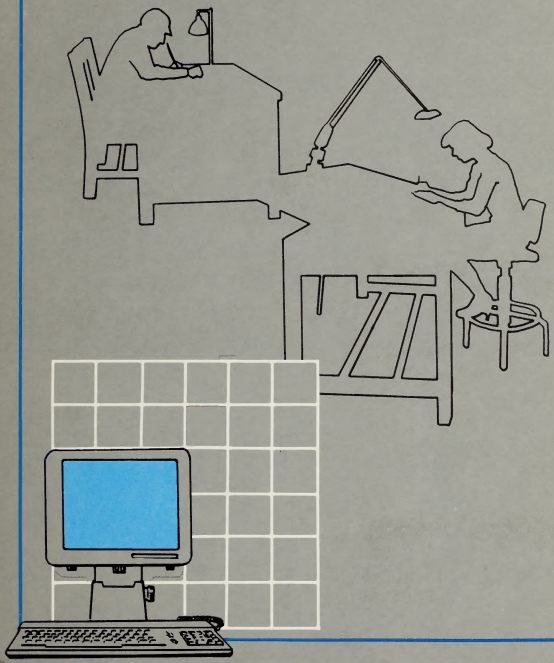
ALMRS

Automated Land and Mineral Record System



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A Word From The Director

Public land records have been with us as long as we've been a Nation. Ownership and use records have grown exponentially, as has the Nation. How the Bureau of Land Management (BLM) manages these records has become a vital national issue.

The need for quick access to public land information is perhaps more acute now than ever before. Ownership and use records help the Bureau plan and evaluate its programs, as well as implement them in the field. Our publics depend on them to reference and track the many uses available on the public lands.

I've met with people at all levels of the Bureau, and with many public resource users, to address this issue. Our decision has been to design an Automated Land and Mineral Record System (ALMRS).

While many manual land and mineral record operations will be automated, their function will remain the same. The Bureau's automated record system will include a vast collection of data that can be accessed electronically from remote sites. The system will provide data for analyses and summarize or display information not available before.

ALMRS will be able to illustrate graphically complex land and mineral records when coupled with the BLM's Geographic Information System. The combined products of these systems represent the most important tool we can supply to the resource manager of the future. I see it as a way to enhance our ability to manage land and mineral records and thereby improve our efficiency and responsiveness to the publics we serve.

ALMRS is one product of our search for new ways to do our jobs better. The system will allow us to gain the efficiencies of automated technology to integrate and use our vast wealth of knowledge in land records and resource information. ALMRS is an extremely important, exciting, and far-reaching effort that has my full support. It will become an essential tool to manage our obligation to the Nation.

Robert F. Burford

Bureau of Land Management
Library
Bldg. 50, Denver Federal Center
Denver, CO 80225

Introduction

As the successor to the General Land Office, the Bureau of Land Management maintains the Nation's public land and mineral records. There have been many changes—and great growth—in these records since the first land offices opened 200 years ago. Today the BLM must respond to several problems with its records:

- They're located in 220 BLM offices (Area, District, State)
- They total over a billion documents
- Most are manually maintained
- Comprehensive sets of records are accessible at only a few offices
- Many have deteriorated
- Some are illegible

Integrating these records into a workable system will accomplish the mission of ALMRS: "to develop and implement an efficient system for recording, maintaining, and retrieving land description, ownership, and use information in support of Federal programs and public users of such records."

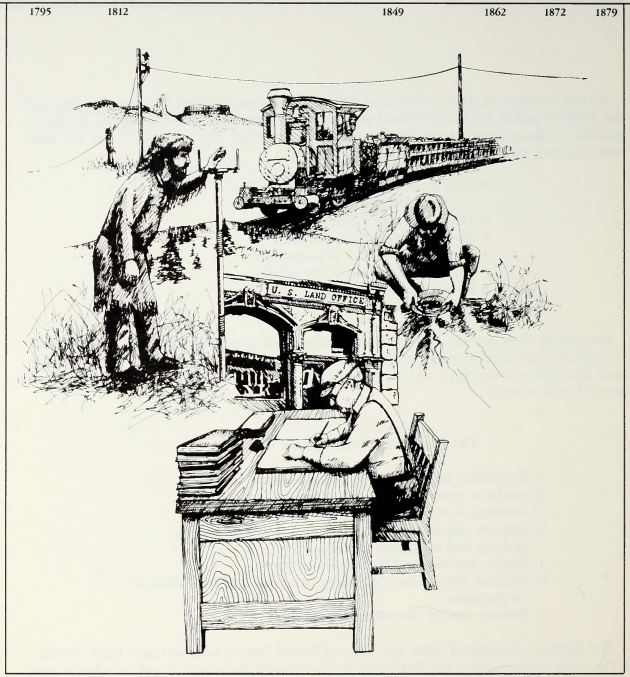
The Objectives of ALMRS are to:

1. **Streamline responses to land and mineral inquiries.**
2. **Facilitate processing of applications and permits.**
3. **Improve access to ownership and use records.**
4. **Improve physical security of records, and protect proprietary and confidential information.**
5. **Ensure accuracy and consistency of data.**
6. **Improve the Bureau's planning, tracking, and evaluation of its programs.**
7. **Reduce costs of records management.**

The Bureau's Automated Land and Mineral Record System will automate most records while using micrographics and hard-copy (paper) records for others, based on what is most efficient for each type of record. ALMRS will allow its users to access information via telecommunications and will automate the production of many records. Users will save time and reduce travel; BLM manual-maintenance costs will be greatly reduced.

This report reflects on significant developments in our Nation's past which forced changes in the way public land records were managed. The report also presents a framework for ALMRS, to describe how the system will address the needs of its users.

Rectangular Survey	First Land Office	General Land Office	Department of the Interior	Homestead Act	Mining Act	Geological Survey
1785	1795	1812	1849	1862	1872	1879



With the settlers came new laws and the idea of a public domain. The Land Ordinance of 1785 established the rectangular survey. Since then, nearly a billion acres of land were sold or granted to fuel the Nation's rapid growth. But before land could be granted, it had to be surveyed and the transactions recorded in Public Land Ledgers—thus began the General Land Office (GLO). U.S. population increased from 3 million to 90 million (1795 to 1908).

A chronic complaint of all GLO Commissioners during the 1840s and 1850s was the need for more clerical and processing personnel to handle routine transactions. In 1856, Commissioner Hendricks reported to Congress that work of the GLO was about four years in arrears. After the Civil War, delays increased.

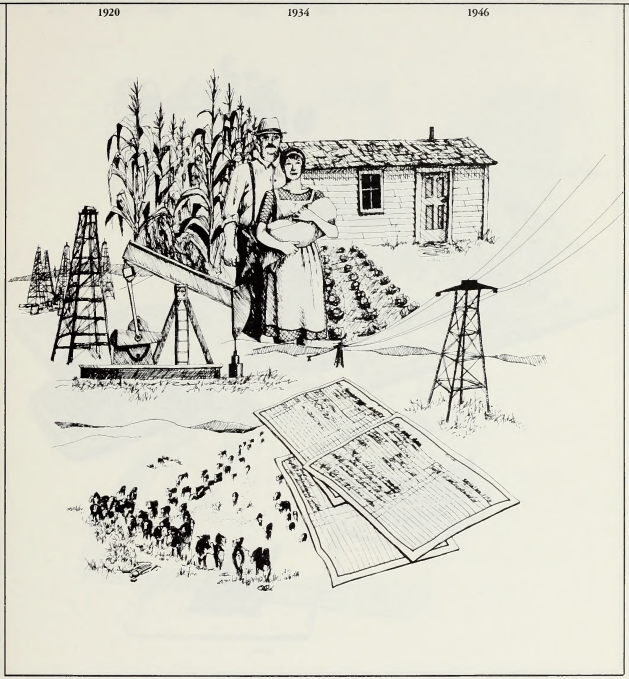
Serial Register Page — 1908

Mineral Leasing Act — 1920

Taylor Grazing Act — 1934

Bureau of Land Management — 1946

New Records System — 1955



Land was no longer inexhaustible. The Nation based its growth upon oil, gas, and other resource development, as recorded on Tract Books, GLO plats, and Serial Register Pages (introduced in 1908). Homesteading came to a close in the 1920s, and by 1955 our population increased to 150 million. The dust bowl ushered in an era of conservation and restoration of the public lands. A dozen new laws were enacted to regulate transfer of the Nation's land and mineral resources.

The exact amount of remaining public lands during this period was unknown. In 1926, Commissioner Spry reported an error in inventory that amounted to 11 million acres of public lands the government did not know it possessed. The error emphasized the need for GLO to obtain more modern calculating machines.

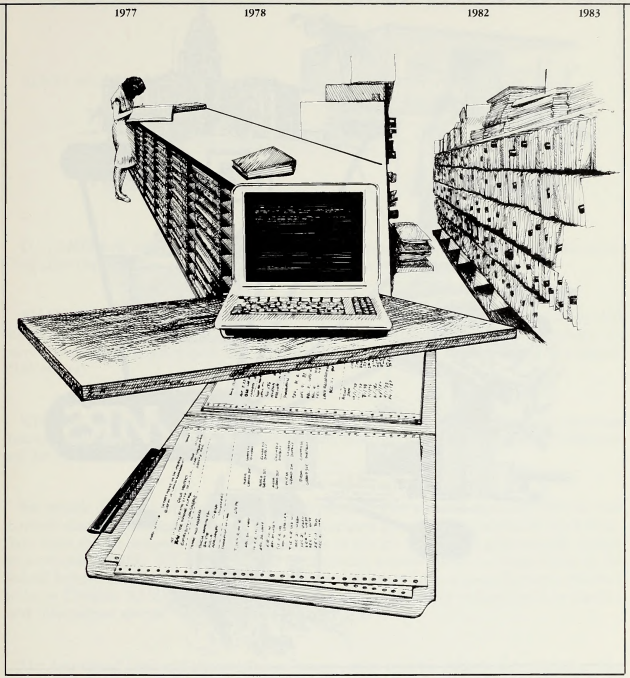
New Records System	Environmental Policy Act	Energy Crisis	Freedom of Information Act	Federal Land Policy & Management Act
1955	1969	1973	1974	1976

In 1955, the Bureau of Land Management inaugurated a modern record system that used mechanical drawing techniques and microform technology, but was still manually maintained. By 1976, Congress passed more than two dozen new public land laws which reflected a shift in philosophy to retention of the remaining public domain "as a resource to be managed under the principles of multiple use and sustained yield for the benefit of all Americans." Our population surpassed 200 million.

The Information Age dawned. Computer design advanced from vacuum tubes to transistors to silicon chips. Mineral development and other land uses intensified in an attempt to restore the Nation's self-sufficiency. The BLM began to study automation of its record systems.

Alaska implements automated records system — Oregon Trial Project — Automated Mining Claim Recordation — Oil & Gas Recordation — Oregon & Montana tests — ALMRS

1977 — 1978 — 1982 — 1983 — 1984



The BLM looked for new solutions to record problems. Automation continued to revolutionize the way we live and work. New information processing equipment appeared in the workplace: record keepers began a transition from manual to electronic data processing systems (1976 to 1984).

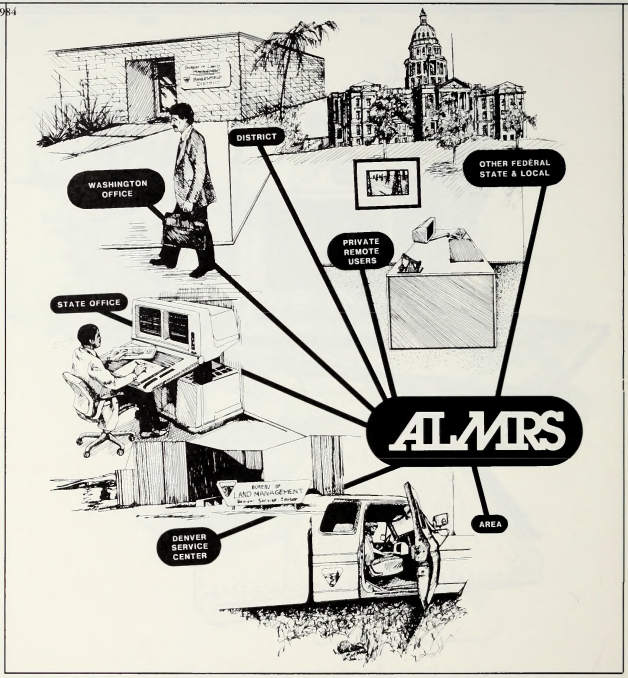
The BLM automated recordation of mining claims in 1978. Oil and gas leases followed in 1982. Pilot studies and tests were initiated on record systems in Alaska, Montana, and Oregon. The BLM decided on a Bureauwide automated land and mineral record system, and New Mexico and Arizona were established as pilot States.

ALMRS
Pilot Test
(AZ & NM)

Development

Implementation

1984



The Automated Land and Mineral Record System (ALMRS) represents a long term commitment of money and personnel to a new way of doing business. The data is being designed to have a 30 year life. ALMRS will require that we do our jobs in new and different ways. It will free us from much of the time-consuming "manual labor" we perform now, and allow us more time to accomplish other professional work we've been trained to do.

As this brief look into our past has shown, change has been a constant force in our history. The transition from the old land and mineral record systems to the new will require that the old systems be phased out over time, not immediately eliminated. It's hard to predict what changes the next 30 years will bring, but you can be sure we'll handle them more efficiently!

SYSTEMS CONCEPTS

ALMRS will have three distinct stages:

- systems concepts
- development
- implementation

The ALMRS staff is now documenting management concerns, feasibility, and benefit/cost ratios. Only after these studies are complete will development and implementation occur.

ALMRS will be developed from system and user requirements identified by field offices and the ALMRS staff. The system will use both manual and electronic data processing systems. As parts of the system are developed, they'll be tested in pilot States (as in Arizona and New Mexico BLM offices).

When the system is ready for implementation, the Bureau will develop user and operation manuals and provide training to the States. When it becomes operational, technical assistance will be provided to all users of the system.

For records that are automated, the Bureau's standard data element dictionary will be used to ensure that ALMRS data can be used in other automated systems inside and outside the Bureau. Data bases will be designed so that changes made to specific records will automatically update other records. ALMRS will also be able to electronically transfer funds, as is now done in the Federal Reserve System. Access to ALMRS data bases will be available in areas that cover different States or Districts. ALMRS capabilities will be reviewed as a possible enhancement to Alaska's land information system.

The Automated Land and Mineral Record System can be used for information requests or case recording and processing. Its request capability will provide data on all lands and minerals cases. BLM employees and external clients must obtain a great deal of lands and minerals information before deciding on actions, initiating applications, or processing cases. Therefore, most ALMRS use will be in the form of information requests.

To meet this need, BLM public rooms and many external users will have read/print terminals connected to a central computer. Terminals capable of inputting data or changing records for case processing will be located in other BLM offices. Access for read-only terminals from external users will be managed by the Bureau.

Case Recording and Processing

ALMRS will automatically screen applications for completeness, defects (e.g., invalid legal description), and conflicts (e.g., wilderness, Known Geologic Structure). While the system will provide information to its users and assist in several steps, some case processing steps, such as resource evaluation, will remain manual.

The major steps in case recording and processing of lands and minerals cases are:

1. Receipt of case material
   a. Manually screen material for completeness
      i. Enter data into ALMRS
   b. System edits and validates input

2. Case processing — Pre-authorization
   a. Issue Serial Number
   b. Identify type of case and processing steps required
      i. Identify fees required
      ii. Resource evaluations
   c. Computer updates other systems as appropriate

3. Case processing — Post-authorization
   a. Technical, environmental reviews
   b. Identify modifications needed
   c. Post-authorization monitoring

Basic Reporting Systems

In addition to retrieving data from a specific record, the system will be able to aggregate data as required for BLM managers and other internal users. Reports can be either structured (preprogrammed) or requested by users in the form they want it, to meet their specific information needs. Either type of report can be aggregated to the next higher level of the organization (for example, leasing activities can be summarized at the District level from Area Office totals, and at State Offices from Districts). The system will be able to generate written reports and graphic displays.

Written and Graphic Displays

Most ALMRS users will require record-oriented graphic displays of some kind, ranging from simple to quite complex. Several types of graphic displays are under consideration. It is anticipated, however, that graphic displays for land description, ownership, and status will utilize Geographic Information System technology.

Access

ALMRS data will be accessible to Bureau personnel; other Federal, State, or local agencies; private industry; interest groups; and private individuals. Eventually, people outside the Bureau will be able to access the data from their own equipment as well as at BLM offices. Access to proprietary or confidential information will be limited on a need-to-know basis. Authorized Bureau personnel will be selected to enter or change data. Native American lands data will be developed as a subsystem of ALMRS for security purposes.

The system will manage access (both internal and external) to ensure that it accommodates user urgency requirements. Managing the system will require that a priority rate structure be established for internal and external users to encourage use of overnight processing and discourage on-line processing.

Telecommunication charges can be a large expense in the operation and maintenance of a system this size. The Bureau will study telecommunication networks (lease lines, microwave, satellite, etc.) to determine the most efficient system.

Compatibility with Other Land and Mineral Information Systems

Communication between ALMRS and other automated systems (both internal and external to BLM) will reduce the duplication of data gathering which presently exists. Because of the need to interface these systems, a standard data element dictionary has been developed to standardize data processing among agencies. With internal systems this requirement will present only minor problems. However, external systems with different dictionaries may pose more serious problems; options for solving them are currently being explored.

Another requirement for ALMRS will be for computer programs and systems to be compatible. Because computer equipment can change every five to ten years, programs must have a common language that can be transferred from one manufacturer's machine to another's. ALMRS programs will be designed to have that compatibility.

This report next shows what records are included in ALMRS, plus the automated files and systems that will interface with it. Each component is further described to show how it fits into the system.

I. ALMRS—AUTOMATED AND MANUAL DATA

Automated data will include land description, ownership, and use, which may be displayed in written form or graphically. Serial number log, stipulations, and regulation references (abstracts) are displayed in a written mode. All of these are used in case processing, reporting, and management.

The manual data (case files, survey plats and notes, Control Document Index, and reference information) are more efficiently left in their present formats.

II. INTERFACED FILES (BLM)

Six automated Bureau files have data that will be heavily used or updated by ALMRS. Geographic coordinates and resource data may be displayed in written form or graphically, while the Bond, Surety, Qualification, and Master Name files will be in a written form.

III. INTERFACED SYSTEMS

Nine BLM and non-Bureau systems will share data with ALMRS. The Bureau's Geographic Information System and Public Land Survey System will graphically display land description, ownership and use, geographic coordinates, and other data.

The Financial Management System will be displayed in written form, as will Mineral System 1 (MS-1), Solid Leasable Minerals System (SLMS), and the Simultaneous Oil and Gas Leasing System (SIMO).

All of these systems will be used in BLM case processing, reporting, and management. Whenever possible, common data entries will be made only once.

The non-Bureau systems, Bonus and Rental Accounting Support System (BRASS), Production Accounting and Auditing System (PAAS), and Auditing and Financial System (AFS), will be displayed in written form. They involve financial management matters of the Minerals Management Service (MMS).

Matrix

	BLM					PUBLIC			
	AREA	DISTRICT	STATE	DSC	W.O.	PUBLIC INTEREST	OTHER FEDERAL	STATE & LOCAL	OUTPUT
I. ALMRS SYSTEM									
A. Automated Data									
1. Land Description	△	▲	▲	●	●	△	△	△	Comb
2. Ownership & Status	▲	▲	▲	●	●	△	△	△	Comb
3. Serial Number Log	▲	▲	▲	—	—	△	△	△	A/N
4. Stipulations	▲	▲	▲	—	●	△	△	△	A/N
5. Regulation Reference File	△	△	△	△	▲	△	△	△	A/N
B. Manual Data									
6. Case File	▲	▲	▲	—	—	△	△	△	A/N
7. Survey Plats	△	△	▲	●	●	△	△	△	Comb
8. Control Document Index	△	△	▲	—	—	△	△	△	A/N
9. Reference Information	△	△	▲	—	—	△	△	△	Comb
II. INTERFACED FILES (BLM)									
10. Geographic Coordinates	△	△	▲	●	△	△	△	△	Comb
11. Resource Data	▲	▲	▲	●	●	—	●	—	Comb
12. Bond	▲	▲	▲	△	△	—	△	△	A/N
13. Surety	△	△	△	△	▲	—	△	△	A/N
14. Qualification	▲	▲	▲	—	●	—	△	—	A/N
15. Master Name	▲	▲	▲	▲	△	—	●	●	A/N
III. INTERFACED SYSTEMS									
A. BLM									
16. Financial Management System	▲	▲	▲	△	△	—	●	—	A/N
17. Mineral System I	▲	▲	▲	●	●	—	—	—	A/N
18. Solid Leasable Mineral System	▲	▲	▲	—	●	—	—	—	A/N
19. Simultaneous Oil & Gas Leasing System	△	△	▲	▲	●	—	—	—	A/N
20. Geographic Information System	▲	▲	▲	●	●	—	●	—	Comb
21. Public Land Survey System	△	○	▲	●	△	△	▲	○	Comb
B. Non-BLM									
22. Bonus & Rental Accounting Support System	△	△	△	—	●	—	○	—	A/N
23. Production Accounting & Auditing System	△	△	△	—	●	—	○	—	A/N
24. Auditing & Financial System	△	△	△	—	●	—	○	—	A/N
25. Other	○	○	○	○	○	○	○	○	○

LEGEND:

- △ Access
- ▲ Input & Access
- ● Special Conditions
- ○ To be considered

A/N Alphanumeric
Comb Graphics & Alphanumerics
— Not Applicable

I. ALMRS SYSTEM

I. ALMRS SYSTEM

A. Automated Data

1. Land Description
2. Ownership & Status
3. Serial Number Log
4. Stipulations
5. Regulation Reference File

B. Manual Data

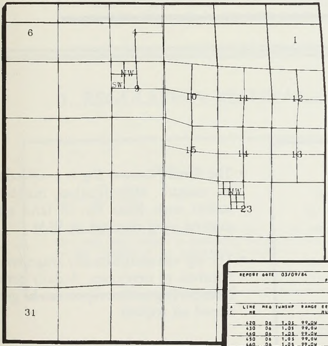
6. Case File
7. Survey Plats
8. Control Document Index
9. Reference Information

A. AUTOMATED DATA

1. LAND DESCRIPTION

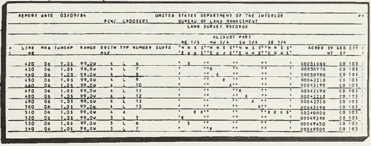
- *Land Description* describes a parcel of land as depicted on the official survey plat resulting from a cadastral survey. It may also include metes and bounds, tracting, or parcel numbering description.
- This data will be automated to define land so that the description can be recorded or graphically displayed.

• Graphic



TOWNSHIP 1 SOUTH RANGE 99 WEST OF THE 6th PRINCI

• Alphanumeric



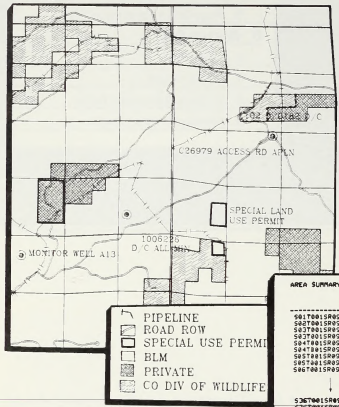
REPORT DATE 03/09/84 — PCN: LR009EP1 — UNITED STATES DEPARTMENT OF THE INTERIOR — BUREAU OF LAND MANAGEMENT — LAND SURVEY RECORDS

ALIQUOT PART: NE 1/4, NW 1/4, SW 1/4, SE 1/4

LINE NR	MRD	TWNSHP	RANGE	SECTN NUM	TYP	NUMBER	SUFFX	ACRES	SV ST	GEO CTY
420	06	1.0S	99.0W	4	L	6		00051080	CO	103
430	06	1.0S	99.0W	4	L	7		00050970	CO	103
440	06	1.0S	99.0W	4	L	8		00050980	CO	103
450	06	1.0S	99.0W	4	L	9		00042210	CO	103
460	06	1.0S	99.0W	4	L	10		00042190	CO	103
470	06	1.0S	99.0W	4	L	11		00042190	CO	103
480	06	1.0S	99.0W	4	L	12		00042210	CO	103
490	06	1.0S	99.0W	4	L	13		00042210	CO	103
500	06	1.0S	99.0W	4	L	13		00042190	CO	103
510	06	1.0S	99.0W	4	A			00240000	CO	103
520	06	1.0S	99.0W	5	L	5		00049340	CO	103
530	06	1.0S	99.0W	5	L	6		00049450	CO	103
540	06	1.0S	99.0W	5	L	7		00049500	CO	103

2. OWNERSHIP AND STATUS

• Graphic



• *Ownership and Status* describes a collection of property rights, including the right of transfer to others, and the availability of a given tract of land or its resources for governmental or private use.

• Ownership and land status (Federal or non-Federal) will be used for various types of analyses, and will incorporate systems such as mining claim recordation and today's Historical Index.

• Alphanumeric

AREA SUMMARY FOR MAP LSTALMAR1S ACTIVE MAP

SUBJECT		AREA	FREQUENCY	PERCENT
501T001SR09SU6BLM	PI	805.04	4	3.29
502T001SR09SU6BLM	PI	765.87	4	3.13
503T001SR09SU6BLM	PI	407.43	16	1.67
503T001SR09SU6PRIVATE	PI	322.20	8	1.32
504T001SR09SU6BLM	PI	452.39	12	1.85
504T001SR09SU6PRIVATE	PI	250.96	9	1.03
505T001SR09SU6BLM	PI	408.23	7	1.67
505T001SR09SU6PRIVATE	PI	289.86	5	1.18
506T001SR09SU6BLM	PI	172.93	6	.71
↓	↓	↓	↓	↓
536T001SR09SU6CDOU	PI	40.32	1	.16
536T001SR09SU6PRIVATE	PI	45.53	1	.19
TOTAL (IN ACRES)		24470.0	169	100.00

3. SERIAL NUMBER LOG

```
TRANS:06CASIT FUNCTION:A  CASE-TYPE: 311111
ACRES:001F0000  COMMODITY: 459
CASH-NO  RECEIPT-NO   COLLECT-METH   FUND-SYM   AMT
NTS-NO:A840198743JON  CAT: P INT-REL: 01 PCT-INT:100
MER   TWP   RNG  SEC  TYP   NUM  SUF   SUBD+LTS SMA
06  C170N  0830W 024  L                 1:4:
ACT-DATE(MDY)  ACTION-CODE  ACTION-REMARKS  PEND ACT
06  18  1984    124        #0915:            C094313
GENERAL REMARKS:

VALID UPDATE TO DATA BASE  ' COC 45198 ' SERIAL NO ASGN
```

• The *Serial Number Log* is a collection of unique identification numbers within each State for all land and mineral cases received by BLM.

• The log will automatically assign serial numbers to new cases. A daily Serial Number Log output report can be generated on request.

4. STIPULATIONS

When it is determined by the District Manager that unitization is necessary for orderly oil and gas development and proper protection of oil shale deposits, no well will be drilled for oil and gas except pursuant to an approved unit plan.

No occupancy or other activity on the surface of the below described lands is allowed under this lease:

T. 1 N., R. 98 W., 6th P. M.
Sec. 7: E½SW¼NE¼NE¼, W½SE¼NE¼NE¼, NW¼NE¼SE¼NE¼, NE¼NW¼SE¼NE¼

- *Stipulations* are restrictions that must be complied with for authorized use of the land. General stipulations for the area will already be in the system. Special stipulations will be entered at the time of case processing.
- Stipulations require that certain actions take place to insure the proper management of all resources in an area.

5. REGULATION REFERENCE FILE

AVAILABILITY

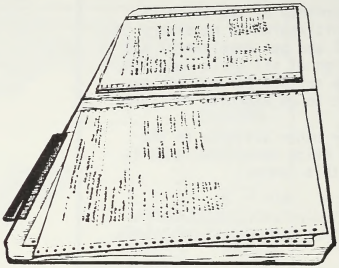
43CFR 3111.31A

A NON-COMPETITIVE LEASE FOR FUTURE INTEREST IN LANDS NOT KNOWN TO CONTAIN MINERAL DEPOSITS MAY BE ISSUED IF IN THE PUBLIC INTEREST

- The *Regulation Reference File* contains regulations pertaining to land and mineral cases. It will also contain a key word index.
- This file will provide abstracts to pertinent regulations regarding a case. Key words will be available to index and locate present regulations.

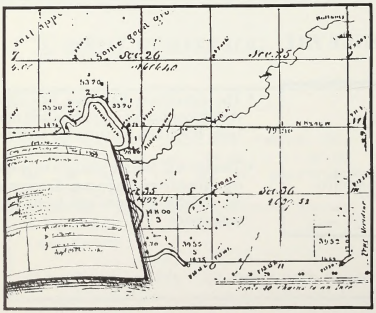
B. MANUAL DATA

6. CASE FILE



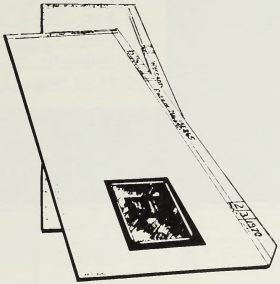
- The *Case File* is a folder that contains legal instruments and documents that support case processing and operational actions.
- This manual record provides a physical location to hold hard copy documents.

7. SURVEY PLATS



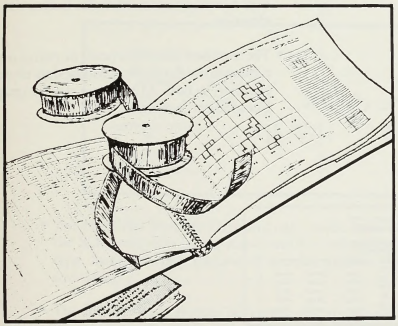
- *Survey Plats* are existing cadastral survey plats and field notes of observations, measurements, and monuments, either in paper form or microfiche (35mm aperture cards).
- These records document the field work performed by surveyors and provide background material for land description.

8. CONTROL DOCUMENT INDEX



- The *Control Document Index* is a controlled collection of aperture cards that contain 35mm microfilm images of title documents, patents, deeds, orders, proclamations, and so on.
- The index provides copies of all documents that affect ownership and status of surface and/or minerals.

9. REFERENCE INFORMATION

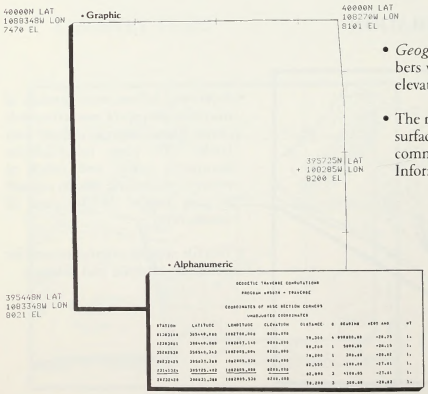


- *Reference Information* consists of microfilm images of manual records (status plats, historical indices, tract books, GLO plats, miscellaneous document index, and index to mineral location and validity contest) as they existed at the time of automation.
- This file archives original records for historical reference and research.

II. INTERFACED FILES (BLM)

II. INTERFACED FILES (BLM)
10. Geographic Coordinates
11. Resource Data
12. Bond
13. Surety
14. Qualification
15. Master Name

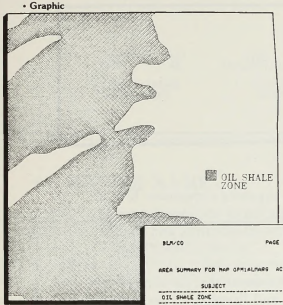
10. GEOGRAPHIC COORDINATES



- *Geographic Coordinates* are a series of numbers which represent latitude, longitude, and elevation.
- The numbers identify a point or points on the surface of the Earth. They will be data elements common to both ALMRS and the Geographic Information System.

11. RESOURCE DATA

• Graphic



• Alphanumeric

BLM/CO PAGE 1 3/12/84

AREA SUMMARY FOR MAP OPMIALMARS ACTIVE MAP NO. 18

SUBJECT	AREA	FREQUENCY	PERCENT
OIL SHALE ZONE	12995.52	1	100.00
TOTAL (IN ACRES)	12995.5	1	100.00

- *Resource Data* is geographically referenced information from resource thematic maps.
- The file will store resource data to be used in the Bureau's Geographic Information System.

12. BOND FILE

BOND FILE

NAME	ADDRESS	CITY	ST	ZIP	BOND TYPE
JOHN JOHNSON	2933 WILLOW DR.	RAPID CITY	SD	57701	OPERATION

BOND NUMBER	BOND AMOUNT	TYPE OF MINERAL	LOCATION
S-84011	$150,000	OIL & GAS	CSO

ACCEPTANCE STATE	NAME OF SURETY	AGENT NAME
CO	AIO INSURANCE	WILLIAM DEER

AGENT ADDRESS
1701 BROADWAY
DENVER, CO 80202

- The *Bond File* includes State and nationwide bond data for all bonds required by the BLM, with data for the surety and bonded principal. It will specifically include: type, States covered, purpose of activity, amount, interest relationships, actions, and dates.
- The file verifies to Bureau personnel that an applicant has an existing valid bond for the use authorized.

13. SURETY FILE

```
                              SURETY FILE

COMPANY NAME              ADDRESS              CITY              ST        ZIP
AETNA INSURANCE CO      1600 ARCH ST       PHILADELPHIA          PA       19103

UNDERWRITING LIMITATIONS          SURETY LICENSES              INCORPORATED IN
     $35,367.00                    ALL EXCEPT CA                 CONNECTICUT
```

- The *Surety File* contains all currently approved companies. It lists States in which the companies are issuing bonds and includes name, address, identification number, interest relationship, and significant dates.
- This file cross references the Bond File to ensure that the surety company listed on the bond is approved and licensed.

14. QUALIFICATION

```
                         QUALIFICATIONS FILE

NAME                                          ADDRESS
JOHN JONES                                    11511 GILPIN STREET
                                              DENVER, CO  80233

CITIZENSHIP                                   AGE
U.S.A.                                        36
```

- The *Qualification File* contains names, addresses, and identification numbers of individuals that qualify for lease or land actions.
- This file determines if an applicant is qualified by age, citizenship, and other factors to hold an interest in or use Federal lands.

15. MASTER NAME

```
              ADD/ASSIGN TO MASTER NAME FILE
TRANS:MN020101 FUNCTIA  NAME ID NUMBER:A8400010088RO
NAME: BROWN JOHN M                        CATEGORY: P
ADDR: 3254 N CIRCLE AVE
CITY: DENVER            STATE: CO  ZIP: 80225
              RETRIEVE/CHANGE MASTER NAME DATA
TRANS:MN050101 FUNCTIC NID:A8400010088RO NAME:BROWN JOHN
ADDR:1640 YALE DR  CITY:DENVER ST:COZIP:80225 CATIP
DATE CHANGED: 10091985
DO YOU WANT MORE DATA:
   RETRIEVE/CHANGE MNF OWNERSHIP INTEREST RECORDS
TRANS:MN060101 FUNCTIR  NID:8923653213TE
   OWNER NID      PER/FRAC IWT   NAME
CORP NAME: SHELL OIL CO  DATE CHANGED: 02231986
   5203500000TE   012000000000   J & B DRILLING
   5203600000TE   018500000000   AMAX EXPLORATION
```

- The *Master Name File* contains names, addresses, named entity identification numbers, category of named entities, and ownership interests of 10% or more in corporations or associations.
- The file eliminates redundant entry and storage of name and address data and allows access for queries and updates.

III. INTERFACED SYSTEMS

III. INTERFACED SYSTEMS

A. BLM

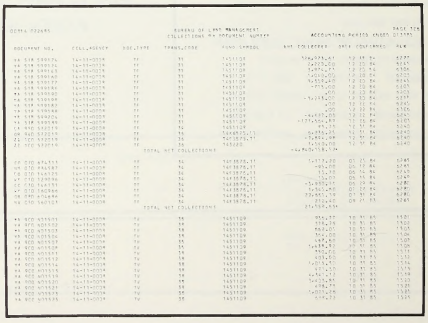
16. Financial Management System
17. Mineral System I
18. Solid Leasable Mineral System
19. Simultaneous Oil & Gas Leasing System
20. Geographic Information System
21. Public Land Survey System

B. Non-BLM

22. Bonus & Rental Accounting Support System
23. Production Accounting & Auditing System
24. Auditing & Financial System
25. Other

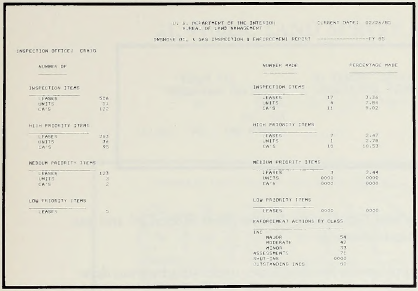
A. BLM

16. FINANCIAL MANAGEMENT SYSTEM



- The *Financial Management System* tracks all collections, payments, and expenditures made in the Bureau, including lease billing.
- The system will alleviate the need for multiple entries of data on receipts for cases; it electronically transmits journal vouchers at the post-adjudication stage.

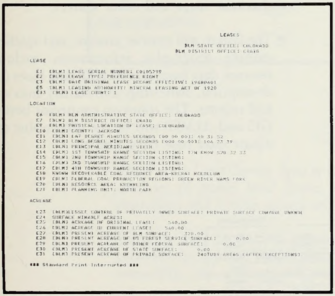
17. MINERAL SYSTEM 1



```
           U. S. DEPARTMENT OF THE INTERIOR           CURRENT DATE:  02/26/85
             BUREAU OF LAND MANAGEMENT

      ONSHORE OIL & GAS INSPECTION & ENFORCEMENT REPORT  ---------------FY 85

INSPECTION OFFICE:  CRAIG

   NUMBER OF                                  NUMBER MADE        PERCENTAGE MADE

 INSPECTION ITEMS                           INSPECTION ITEMS
   LEASES          506                        LEASES          17        3.36
   UNITS            51                        UNITS            4        7.84
   CA'S            122                        CA'S            11        9.02

 HIGH PRIORITY ITEMS                        HIGH PRIORITY ITEMS
   LEASES          283                        LEASES           7        2.47
   UNITS            36                        UNITS            1        2.78
   CA'S             95                        CA'S            10       10.53

 MEDIUM PRIORITY ITEMS                      MEDIUM PRIORITY ITEMS
   LEASES          123                        LEASES           3        2.44
   UNITS             3                        UNITS         0000        0000
   CA'S              2                        CA'S          0000        0000

 LOW PRIORITY ITEMS                         LOW PRIORITY ITEMS
   LEASES            5                        LEASES        0000        0000

                                            ENFORCEMENT ACTIONS BY CLASS
                                            INC
                                              MAJOR               54
                                              MODERATE            42
                                              MINOR               33
                                            ASSESSMENTS           71
                                            SHUT-INS            0000
                                            OUTSTANDING INCS      60
```

- *Mineral System 1* is a data collection, storage, and retrieval system for oil and gas lease inventory and inspection data.
- The system tracks leases, inspections, and Incidences of Noncompliance (INCs). It provides statistical summaries on inspection sheets, lease-well inventory, operator-lease inventory, and lease inspection history.

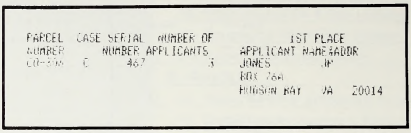
18. SOLID LEASABLE MINERAL SYSTEM



```
                                   LEASES

                         BLM STATE OFFICE: COLORADO
                       BLM DISTRICT OFFICE: CRAIG
LEASE

  E1  [BLM] LEASE SERIAL NUMBER: C0105299
  E2  [BLM] LEASE TYPE: PREFERENCE RIGHT
  E3  [BLM] DATE ORIGINAL LEASE BECAME EFFECTIVE: 19680601
  E5  [BLM] LEASING AUTHORITY: MINERAL LEASING ACT OF 1920
  E33  [BLM] LEASE COUNT: 1

LOCATION

  E6  [BLM] BLM ADMINISTRATIVE STATE OFFICE: COLORADO
  E7  [BLM] BLM DISTRICT OFFICE: CRAIG
  E9  [BLM] PHYSICAL LOCATION OF LEASE: COLORADO
  E10  [BLM] COUNTY: JACKSON
  E11  [BLM] LAT DEGREE MINUTES SECONDS [00 00 00]: 40 31 52
  E12  [BLM] LONG DEGREE MINUTES SECONDS [000 00 00]: 106 23 39
  E13  [BLM] PRINCIPAL MERIDIAN: SIXTH
  E14  [BLM] 1ST TOWNSHIP RANGE SECTION LISTING: T7N R80W S28 32 33
  E15  [BLM] 2ND TOWNSHIP RANGE SECTION LISTING:
  E16  [BLM] 3RD TOWNSHIP RANGE SECTION LISTING:
  E17  [BLM] 4TH TOWNSHIP RANGE SECTION LISTING:
  E18  KNOWN RECOVERABLE COAL RESOURCE AREA-KRCRA: MCCALLUM
  E19  [BLM] FEDERAL COAL PRODUCTION REGIONS: GREEN RIVER HAMS FORK
  E20  [BLM] RESOURCE AREA: KREMMLING
  E21  [BLM] PLANNING UNIT: NORTH PARK

ACREAGE

  E23  [BLM]LESSEE CONTROL OF PRIVATELY OWNED SURFACE: PRIVATE SURFACE CONTROL UNKNWN
  E24  SURFACE MINABLE ACRES:
  E25  [BLM] ACREAGE OF ORIGINAL LEASE:    560.00
  E26  [BLM] ACREAGE OF CURRENT LEASE:    560.00
  E27  [BLM] PRESENT ACREAGE OF BLM SURFACE:    320.00
  E28  [BLM] PRESENT ACREAGE OF US FOREST SERVICE SURFACE:       0.00
  E29  [BLM] PRESENT ACREAGE OF OTHER FEDERAL SURFACE:       0.00
  E30  [BLM] PRESENT ACREAGE OF STATE SURFACE:       0.00
  E31  [BLM] PRESENT ACREAGE OF PRIVATE SURFACE:    240TUDY AREAS [AFTER EXCEPTIONS]

*** Standard Print Interrupted ***
```

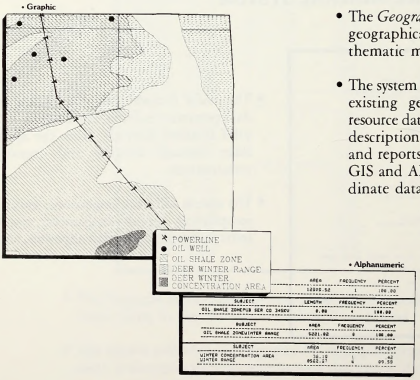
- The *Solid Leasable Mineral System* contains data pertinent to Federal and Native American solid leasable minerals, from the application stage through issuance and operations to terminations.
- The system will track inspections, status of noncompliances, appeals, assignments, royalty data, mine and exploration plan approvals, and so on.

19. SIMULTANEOUS OIL AND GAS LEASING SYSTEM



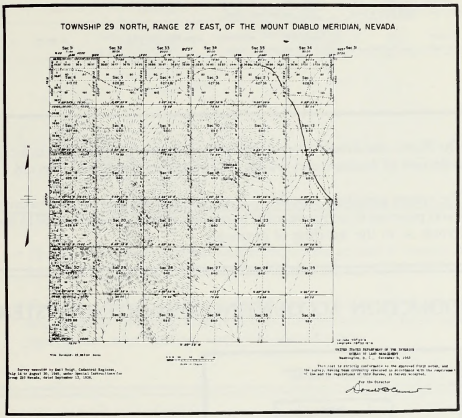
- The *Simultaneous Oil and Gas Leasing System* offers Federal oil and gas leases under simultaneous drawings.
- The system processes applications for these leases under simultaneous drawing procedures.

20. GEOGRAPHIC INFORMATION SYSTEM



- The *Geographic Information System* consists of geographically referenced resource data from thematic maps and other sources.
- The system will retrieve, analyze, and synthesize existing geographic information, including resource data bases and ALMRS data bases (land description, ownership, and status), into maps and reports. The common connector between GIS and ALMRS will be the geographic coordinate data base (x, y, and z).

21. PUBLIC LAND SURVEY SYSTEM



- The *Public Land Survey System* is a rectangular survey system used in all public land States, consisting of 6-mile square townships and 1-mile square sections.

- Formerly used by GLO to transfer ownership title, PLSS now provides the land net information base used in ALMRS to track ownership, use, and mineral estate.

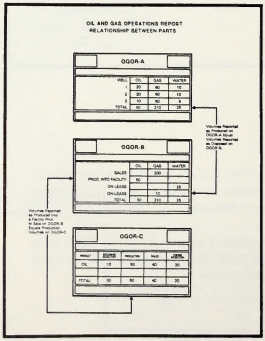
B. NON-BLM

22. BONUS & RENTAL ACCOUNTING SUPPORT SYSTEM

```
REPORT ID.  BL5051                    UNITED STATES DEPARTMENT OF THE INTERIOR                                  PAGE   12,224
RUN DATE.  06/24/84                        MINERALS MANAGEMENT SERVICE
RUN TIME.  20:46:10                         ROYALTY MANAGEMENT PROGRAM
                                     BONUS AND RENTAL ACCOUNTING SUPPORT SYSTEM
                                        COMPLETE LEASE NUMBER REPORT
                                           AS OF 06/23/84
BLM STATE OFFICE  51  FAIRBANKS
STATE  02 ALASKA

LEASE NUMBER    LEASE TYPE LAND TYPE  ANNIVERSARY DATE  EXPIRATION DATE   ACRES        FUND SYMBOL          RENT AMOUNT    STATUS
------------    ---------- ---------  ----------------  ---------------   -----        -----------         -----------    ------

F   -000578-        HS         P        02/18/1968        02/19/1988     1.0000  14   1811                  $50.00         A
BILLEE NAME  DAWSON JAMES E ET AL                   BILLEE CODE  00803

F   -032261-        OG         P        08/01/1964        99/99/9998     3,560.0000  14   8003              $1,780.00      A
BILLEE NAME  ATLANTIC RICHFIELD CO ET AL            BILLEE CODE  00446
```

- The *Bonus and Rental Accounting Support System* processes checks for the collection of bonuses and rentals, and disburses the funds collected.
- The system provides a monthly billing cycle and updates to lease balances; tracks payment or nonpayment of bonus and rent; and maintains BLM lease records as to the standing of payments.

23. PRODUCTION ACCOUNTING & AUDITING SYSTEM



- The *Production Accounting and Auditing System* has manual and automated processes for minerals production reporting, accounting, lease management, and auditing.
- The system tracks and maintains production reports by lease, unit, communitization agreement, and facility operator on all Federal and Native American mineral lands.

24. AUDITING & FINANCIAL SYSTEM

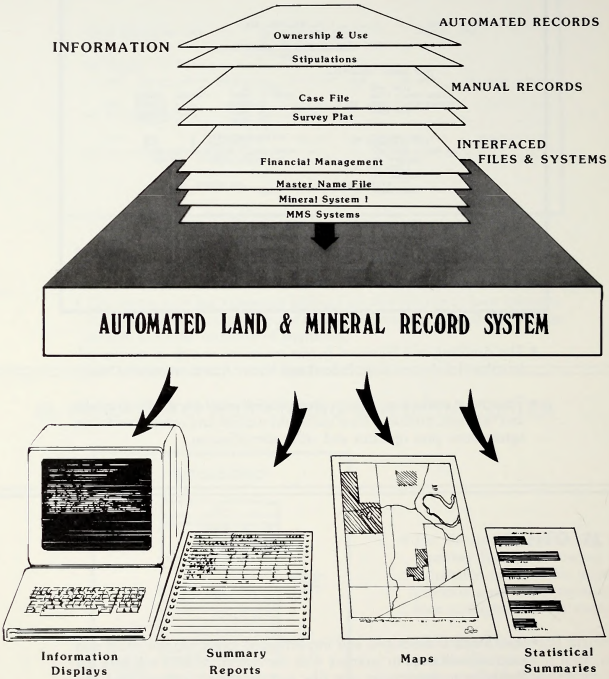
```
SCREEN ID:  RR3802                          MMS - RMP - AFS
    DATE:  01/21/85                                                  TIME:  10:41:14

                                  LEASE MASTER DATA INQUIRY SCREEN
                                            SCREEN 2 OF 4

          LEASE NUMBER:  079-007004-0

                LEASE TYPE:  01                 STATE:  CA
      ADVANCE ROYALTY PAYOR:                  COUNTY 1:  06065      PORTION:  1.000000
      MINIMUM ROYALTY PAYOR:  44510                 2:  00000             :  0.000000
                 RENT PAYOR:                        3:  00000             :  0.000000
                                                    4:  00000             :  0.000000

        ESCALTING INDICATOR:  N                MINIMUM ROYALTY/ACRE:  $        1.00
             RENT RECOUPMENT:  N                        RENTAL/ACRE:  $        0.00
     ADV ROYALTY RECOUPMENT:  N                 MIN ROYALTY ACREAGE:      195.3200
              AGREEMENT IND:                         RENTAL ACREAGE:        0.0000
                 ESCROW IND:  N
            SEVERANCE TAX:
                     FIELD:  22663                      OCS SECTION:  00
              BONUS AMOUNT:  $                  0.00

                  LOCATION:  T3S., R.7W., SBM, PARCEL#S 154,165,167
```

- The *Auditing and Financial System* maintains records of monies collected and disbursed from Federal and Native American mineral leases.

- This system tracks lease account identification numbers, royalty schedules and balances, products, lease status, unitization and communitization agreements, plus operator and seller identification.

25. OTHER

- As ALMRS is developed and implemented, other systems (BLM and external) will need to interface with the system. ALMRS will have the flexibility to incorporate new files and systems to improve land and mineral record management.


INFORMATION
AUTOMATED RECORDS
Ownership & Use
Stipulations
MANUAL RECORDS
Case File
Survey Plat
INTERFACED FILES & SYSTEMS
Financial Management
Master Name File
Mineral System 1
MMS Systems
AUTOMATED LAND & MINERAL RECORD SYSTEM
Information Displays
Summary Reports
Maps
Statistical Summaries

A Last Word From The Director

As this glimpse at ALMRS has shown, the Bureau is headed for some major changes in the way it does business. Our aim is simple: to keep the Bureau's records accurate, timely, and more responsive to the needs of the Nation.

As the Bureau nears its 40th anniversary, we've seen great growth in our responsibilities and workload. Automating our records is the key to meeting the Bureau's commitments. I've worked with many of you, as well as our publics, to identify your needs and concerns about changing to an automated record system. Your input helped shape the design of ALMRS; it will enhance our efficiency, our skills, and our satisfaction of a job well done.

ALMRS is a call to action for everyone in the Bureau. It may well become the single most important tool used by the resource manager of the future. As such, let's give it our full support and commitment.

☆ U. S. GOVERNMENT PRINTING OFFICE 1985/578-612/25180

Bureau of Land Management
Library
Bldg. 50, Denver Federal Center
Denver, CO 80225

Form 1279-3
(June 1984)

BORROWER

HD
216
.L365
1985
c.2

Automated Land and M

DATE LOANED	BORROWER

USDI - BLM

ALMRS Project Office
BLM Service Center
Building 50
Denver Federal Center
Denver, Colorado 80225
(303) 236-6507
FTS 776-6507

As the Nation's principal conservation agency, the Department of Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interests of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

U.S. Department of the Interior
Bureau of Land Management